

APPLICANTS: Jack R. Wands, et al.  
SERIAL NUMBER: 09/872,968

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. – 20. (Previously Canceled)

21. (Currently Amended) A non-transgenic model for Alzheimer' Disease, comprising a non-human animal, wherein said animal comprises a composition comprising an exogenous AD7c-NTP nucleic acid, histone, and amphipathic compound, and wherein expression of said exogenous AD7c-NTP nucleic acid is detected in neuronal tissue of said animal at least 4 weeks after contacting said animal with said composition.

22. (Canceled).

23. (Original).The model of claim 21, wherein said animal is a rodent.

24. (Original).The model of claim 21, wherein said animal is a non-human primate.

25. (Original).The model of claim 22, wherein said neuronal cell is selected from the group consisting of a cortical neuronal cell, a hippocampal neuronal cell, a cerebellar neuronal cell, and a glial cell.

26. (Canceled).

27. – 49. (Previously Canceled)

50. (Currently Amended). A method of identifying a compound which inhibits Alzheimer's Disease-associated neuronal cell death, comprising contacting a non-human animal the model of claim 21 expressing a heterologous AD7c-NTP nucleic acid in a neuronal tissue of said animal, with a candidate compound and measuring neuronal cell viability, wherein an increase in cell

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viability in the presence of the compound compared to in its absence indicates that said compound inhibits Alzheimer's Disease associated neuronal cell death.

51. (Currently Amended). A method of identifying a compound which inhibits a symptom of Alzheimer's Disease, comprising contacting ~~a non-human animal~~ the model of claim 21 expressing a heterologous AD7c-NTP nucleic acid in a neuronal tissue of said animal, with a candidate compound and detecting amyloid precursor protein (APP) expression in said tissue, wherein an decrease in APP expression in the presence of the compound compared to in its absence indicates that said compound inhibits a symptom of Alzheimer's Disease.

52. (Currently Amended). A method of identifying a compound which inhibits a symptom of Alzheimer's Disease, comprising contacting ~~a non-human animal~~ the model of claim 21 expressing a heterologous AD7c-NTP nucleic acid in a neuronal tissue of said animal, with a candidate compound and detecting amyloid plaques in said tissue, wherein an decrease in the amount of said plaques in the presence of the compound compared to in its absence indicates that said compound inhibits a symptom of Alzheimer's Disease.

53. (New). The model of claim 21, wherein said AD7c-NTP nucleic acid comprises the nucleotide sequence of SEQ ID NO:1 or the complement thereof.

54. (New). The model of claim 21, wherein said expression of said exogenous AD7c-NTP nucleic acid is detected in neuronal tissue of said animal at least 2 months after contacting said animal with said composition.

55. (New). The method of claim 21, wherein gene expression in said tissue is detected *in vivo* for at least four weeks after contacting said tissue with said composition.

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56. (New). The method of claim 21, wherein said histone is selected from the group consisting of H1, H2A, H2B, H3, and H4.

57. (New). The method of claim 21, wherein said composition further comprises a nuclear localizing signal.

58. (New). The method of claim 21, wherein the amphipathic compound is a non-natural polyamine having a hydrophobic moiety, said polyamine being selected from the group consisting of a C6-C24 alkane, C6-C24 alkane, sterol, steroid, lipid, fatty acid, and hydrophobic hormone.

59. (New). The method of claim 21, wherein said nucleic acid is an AD7c-NTP antisense molecule or a nitric oxide synthase III antisense molecule.